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MORGAN & FINNEGAN, L.L.P.  
345 Park Avenue  
New York, NY 10154

EXAMINER

ABEL JALIL, NEVEEN

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/854,635

Applicant(s)

SALMENKAITA ET AL.

Examiner

Neveen Abel-Jalil

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-50 ~~1-45~~ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-50 ~~1-45~~ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

SAM RIMELL  
PRIMARY EXAMINER

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

1. The amendment filed on September 15, 2003 has been received and entered. Claims 46-

50 are added. Therefore, claims ~~1-45~~<sup>1-50</sup> are now pending.

2. Acknowledgement is made for the amended abstract.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Robarts et al. (U.S. Pub. No. 2002/0083025 A1).

As to claims 1, 22, and 25, Robarts et al. discloses a method to enable a wireless device to provide recommendations to its user that are appropriate to the device's current environment (See page 3, paragraphs 0048-0049), comprising:

a processor (See page 3, paragraph 0048);

a memory coupled to the processor (See pages 6-7, paragraphs 0074-0075), programmed

to:

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receiving sensor signals characterizing a current environment of the wireless device (See page 3, paragraphs 0051-0052);

processing the sensor signals with a context inference engine (See page 4, paragraph 0054, also see page 6, paragraph 0069);

outputting a current context result from the processing by the context inference engine (See pages 2-3, paragraph 0044);

forming a context-activity pair by selecting an activity and pairing it with the current context result (See page 21, paragraphs 0193-0197, also see page 1, paragraph 0005);

searching a database of recommendations using the context-activity pair (See page 19, paragraph 0182, also see pages 22-23, paragraph 0204); and

providing recommendations to the user in response to the searching step (See page 19, paragraph 0182).

As to claims 2, and 23, Robarts et al. discloses wherein the processing of the sensor signals with a context inference engine is embodied as programmed instructions executed within the user's wireless device (See page 4, paragraphs 0056-0057, also see page 10, paragraph 0100).

As to claim 3, and 24, Robarts et al. discloses wherein the processing of the sensor signals with a context inference engine is embodied as programmed instructions executed within a separate network server in response to signals from the user's wireless device (See page 11, paragraph 0108).

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As to claim 4, Robarts et al. discloses wherein the sensor signals are selected from the group consisting of positioning signals, touch signals, audio signals, compass signals, ambient light signals, ambient temperature signals, three-axis acceleration signals, time signals, and the device's operational mode signals (See pages 4-5, paragraphs 0058-0059, also see page 23, paragraph 0211, and see page 12, paragraph 0110).

As to claim 5, Robarts et al. discloses wherein the wireless device offloads a portion of the processing of the sensor signals to a context inference engine to the server (See page 10, paragraphs 0099).

As to claim 6, Robarts et al. discloses wherein the selecting of an activity is automatically performed in the wireless device (See page 24, paragraph 00216, also see pages 25-26, paragraphs 0223-0224).

As to claim 7, Robarts et al. discloses wherein the selecting of an activity performed by the user in the wireless device (See page 1, paragraph 0005, also see pages 2-3, paragraph 0044).

As to claim 8, Robarts et al. discloses wherein the signals from the user's wireless device are sent to the server without any user identification (See page 7, paragraph 0079, also see page 10, paragraph 0100, also see page 23, paragraphs 0210-0211).

As to claims 9, and 37, Robarts et al. discloses which further comprises:

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providing the recommendation in a separate server in response to context-activity pair information received at the server from the user's wireless device (See page 26, paragraphs 0226-0227).

As to claims 10, 20, and 38, Robarts et al. discloses which further comprises:

maintaining the database as a context-activity pair database by the server (See pages 13-14, paragraphs 0133-0138);

associating in the database the context-activity pair information with appropriate recommendations made in the past to many users (See page 28, paragraph 0245, also see page 28, paragraph 0247, and see page 31, paragraph 0280).

As to claims 11, and 39, Robarts et al. discloses which further comprises:

making new recommendations to the user in response to the context-activity pair information submitted by the wireless device (See page 4, paragraphs 0056-0057); and

gathering the new recommendations and adding them to the database (See page 33, paragraphs 0316-0317, also see page 30, paragraph 0265);

whereby the variety, quality and pertinence of the recommendations in the database grows as the recommendation system is used (See pages 30-31, paragraphs 0267-0271).

As to claims 12, 29, and 40, Robarts et al. discloses which further comprises:

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compiling statistical usage information about the recommendations and storing the usage information in the database (See pages 23-24, paragraph 0211, also see page 26, paragraph 0227, and see page 29, paragraph 0259) .

As to claims 13, 30, and 41, Robarts et al. discloses which further comprises:  
providing the statistical usage information to the wireless device accompanying the recommendations (See page 13, paragraph 0118).

As to claims 14, 31, and 42, Robarts et al. discloses which further comprises:  
filtering the recommendations received at the wireless device by using the statistical usage information accompanying the recommendations (See page 6, paragraph 0069, also see page 33, paragraph 0316, and see page 13, paragraph 0118).

As to claims 15, and 43, Robarts et al. discloses wherein said providing step further comprises:

filtering the recommendations at the wireless device using statistical usage information associated with the recommendations (See page 6, paragraph 0069, also see page 33, paragraph 0316).

As to claims 16, 32, and 44, Robarts et al. discloses wherein said providing step further comprises:

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accessing a history log of previous recommendations provided to the user (See page 32, paragraph 0301, also see page 32, paragraph 0312);

filtering new recommendations from the previous recommendations and providing the new recommendations to the user (See page 6, paragraph 0069, also see page 33, paragraph 0316).

As to claims 17, 33, and 45, Robarts et al. discloses wherein said providing step further comprises:

accessing a history log of previous recommendations provided to the user (See page 32, paragraph 0301, also see page 32, paragraph 0312), including ratings of the previous recommendations (See page 31, paragraphs 0275-0276);

filtering recommendations using the ratings and providing the filtered recommendations to the user (See page 31, paragraphs 0275-0276).

As to claims 18, and 34, Robarts et al. discloses which further comprises:

providing the recommendations to an application program (See pages 6-7, paragraphs 0074-0077, also see page 4, paragraph 0057).

As to claim 19, Robarts et al. discloses which further comprises:

providing to the user control over the privacy of the user's information within the network server (See page 6, paragraph 0066, and see page 22, paragraph 200, also see pages 22-23, paragraphs 0204-0206).



As to claim 21, Robarts et al. discloses which further comprises:

making new recommendations to the user in response to the context-activity pair information submitted by the wireless device (See page 4, paragraphs 0056-0057); and

gathering the new recommendations and adding them to the database (See page 33, paragraphs 0316-0317, also see page 30, paragraph 0265) without any personal information about the user (See page 6, paragraph 0066, and see page 22, paragraph 200, also see pages 22-23, paragraphs 0204-0206).

As to claim 26, Robarts et al. discloses a system to provide recommendations to the user of a wireless device that is appropriate to the device's current environment (See page 22, paragraph 0200), comprising:

a sensor in the wireless device for providing sensor signals characterizing a current environment of the wireless device (See page 3, paragraphs 0051-0052);

a processor coupled to the sensor, for forming pair information by selecting an activity and pairing it with current sensor information derived from said sensor signals (See page 6, paragraph 0069-0071);

a context inference engine in the server coupled to the wireless device (See page 3, paragraph 0049), for processing the current sensor information, said context inference engine providing a current context result from the processing (See page 2, paragraph 0043, also see pages 5-6, paragraph 0064, and see page 15, paragraph 0156);

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a database coupled to the context inference engine, for providing recommendations using the activity and current context activity pair (See page 19, paragraph 0182); and

an output device in the wireless device and coupled to the database, for providing the recommendations to the user (See page 19, paragraph 0182, also see pages 23-24, paragraph 0211).

As to claim 27, Robarts et al. discloses a business method to enable a wireless device to provide recommendations to its user that are appropriate to the device's current environment (See page 22, paragraph 0200), comprising:

characterizing a current environment of the wireless device with a current context result (See page 3, paragraphs 0051-0052, also see pages 2-3, paragraphs 0044);

forming a context-activity pair by selecting an activity and pairing it with the current context result (See page 21, paragraphs 0193-0197, also see page 1, paragraph 0005);

accessing a database of recommendations using the context-activity pair without including any user personal data (See page 22, paragraph 0200, wherein “without including any user personal” reads on “device itself”); and

providing recommendations to the wireless device from the database (See page 19, paragraph 0182, also see pages 23-24, paragraph 0211).

As to claim 28, Robarts et al. discloses which further comprises:

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gathering the new recommendations and adding them to the database without including any user personal data (See page 6, paragraph 0066, and see page 22, paragraph 200, also see pages 22-23, paragraphs 0204-0206).

As to claim 35, Robarts et al. discloses which further comprises:

providing at least portions of the database to a third party service provider (See page 13, paragraph 0118, also see page 23, paragraph 0211, and see page 26, paragraph 0227, and page 29, paragraph 0259).

As to claim 36, Robarts et al. discloses a method to enable a wireless device to provide recommendations to its user that are appropriate to the device's current environment (See page 22, paragraph 0200), comprising:

receiving sensor signals characterizing a current environment of the wireless device (See page 3, paragraphs 0051-0052);

processing the sensor signals with a context inference engine to produce a set of current context results (See pages 2-3, paragraph 0044),

forming a set of context-activity pairs by selecting an activity and pairing it with the set of current context results (See page 21, paragraphs 0193-0197, also see page 1, paragraph 0005);

accessing a set of related service history items from a history log (See page 32, paragraph 0301, also see page 32, paragraph 0312);

forming context-activity pair information from the set of current context results and the set of related service history items (See page 28, paragraph 0245, also see page 28, paragraph 0247, and see page 31, paragraph 0280);

searching a database of recommendations using the context-activity pair information (See page 19, paragraph 0182, also see pages 22-23, paragraph 0204); and providing recommendations to the user in response to the searching step (See page 19, paragraph 0182).

As to claim 46, Robarts et al. discloses a method to enable a wireless device to provide recommendations to its user that are appropriate to the device's current environment (See page 22, paragraph 0200), comprising:

receiving sensor signals characterizing a current environment of the wireless device (See page 3, paragraphs 0051-0052);

processing the sensor signals with a context inference engine utilizing adaptive and continuous learning processes (See page 27, paragraph 0240, also see page 28, paragraphs 0248-0250, also see page 33, paragraph 0321);

outputting a current context result from the sensor processing by the context inference engine (See pages 2-3, paragraph 0044);

selecting a user activity and pairing the activity with the current context result to form a context-activity pair (See page 21, paragraphs 0193-0197, also see page 1, paragraph 0005);

searching a database of context-activity pairs in a recommendation system while maintaining the privacy of the user (See page 6, paragraph 0066, and see page 22, paragraph 200, also see pages 22-23, paragraphs 0204-0206);

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providing recommendations to the user relative to the context-activity pair in response to the searching step (See page 19, paragraph 0182, also see pages 22-23, paragraph 0204);

filtering the recommendations using an algorithm to identify new and significant information as new recommendations (See page 6, paragraph 0069, also see page 33, paragraph 0316); and

displaying the new recommendations to the user (See page 31, paragraphs 0275-0276).

As to claim 47, Robarts et al. discloses forming a metadata vector of the sensor signals for processing in the device or transmission to a server for processing (See page 33, paragraph 0316).

As to claim 48, Robarts et al. discloses establishing a privacy user interface to a privacy control element enabling the user to set privacy policies related to access to the context inference engine (See page 6, paragraph 0066, and see page 22, paragraph 200, also see pages 22-23, paragraphs 0204-0206).

As to claim 49, Robarts et al. discloses excluding user personal data from the database of context-activity pairs (See page 22, paragraph 0203, and see page 29, paragraphs 252-254, also see page 31, paragraph 0288).

As to claim 50, Robarts et al. discloses providing context activity pair datasets in the database to third parties for market research (See page 13, paragraph 0118, also see page 23, paragraph 0211, and see page 26, paragraph 0227, and page 29, paragraph 0259).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-50 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rankin et al. (U.S. Pub. No. 2003/0013459 A1) teaches method for location based recordal of user activity.

Leung et al. (U.S. Pub. No. 2002/0061741 A1) teaches method for context-sensitive dynamic information service composition via mobile and wireless network communication.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 703-305-8114. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Neveen Abel-Jalil  
December 22, 2003



**SAM RIMELL**  
**PRIMARY EXAMINER**